

# Form FFC-W. Worksheet for Designing Individual Field Trials under Aquaflor® INAD #10-697

## INSTRUCTIONS

1. This Worksheet is an aid for Investigators preparing to use Aquaflor® under INAD #10-697. The information solicited is required to comply with FDA regulations. Before beginning, Investigators should have carefully read through the entire Study Protocol. Fill in this Worksheet as completely as possible.
2. **Investigators** should keep one copy on file, and send another copy to the Monitor for review and signature. The Monitor should then forward the signed Worksheet to the Study Director. The Study Director will also review the Worksheet, assign the Worksheet a Study Number, and then provide the Investigator and Monitor with the Study Number and approval to proceed with Aquaflor® treatment.

## SITE INFORMATION

Facility			
Address			
Investigator			
Reporting individual (if not investigator)			
Phone		FAX	

## FISH CULTURE AND DRUG TREATMENT INFORMATION

Fish disease to be treated			
Fish species/stock to be treated			
Number of fish <b>per unit</b> (indicate tank, raceway or pond)			
Number of units to be treated		Number of untreated control units	
Average fish per pound		Estimated total weight of fish treated	
Intended florfenicol dosage (i.e., 10 or 15 mg florfenicol per kg fish per day)			
Projected % body weight to be fed			
Planned duration of drug treatment (days)			
Total medicated feed needed ( lbs or Kg )			
Planned grams of Aquaflor® pre-mix in feed			
Anticipated treatment dates (start/end)			
Feed type (manufacturer/moist <u>vs</u> dry/size) for treatments and controls (identify both if different)			

## Form FFC-W. Worksheet for Designing Study Protocols

**STUDY DESIGN:** Variable(s) to be tested: (See Sections VIII - XIII in Study Protocol). Describe in detail the purpose of the clinical trial (hypothesis), the number of experimental units, florfenicol dosage, the number of fish per unit, and the disease to be treated. Study designs must be carefully prepared and lend themselves to rigorous evaluation. If more space is required to describe study design, title additional page(s) "Study Design" and attach to this Worksheet.

Study designed by \_\_\_\_\_

☐ **Note:** If proposed treatment is at a dosage of **15 mg florfenicol/kg body weight/day for 10 consecutive days to control mortality caused by bacterial coldwater disease** please check box to indicate that signed documentation from a licensed veterinarian verifying the need for treatment is attached to this Worksheet.

### DISPOSITION OF TREATED FISH (Human Food Safety Considerations):

\_\_\_\_\_ Estimated time (days, months) from last treatment day to first possible harvest for human consumption

Check applicable box(es):

☐

10 or 15 mg florfenicol per kg BW per day for 10 days; 21-day withdrawal period for salmonid species.

☐

10 or 15 mg florfenicol per kg BW per day for 10 days; 28-day withdrawal period for non-salmonid species.

☐

Investigator or alternate shall initial here to indicate awareness that fish disposition must be in compliance with FDA-mandated withdrawal times as described in Section XV. of the Study Protocol.

### WORKER SAFETY CONSIDERATIONS:

☐

Initial here to indicate that all personnel handling drug have read Material Safety Data Sheet for Aquaflor® and are aware of SAFETY precautions to be taken when handling medicated feed.

Date prepared \_\_\_\_\_

Investigator \_\_\_\_\_

Date reviewed \_\_\_\_\_

Monitor \_\_\_\_\_

**FORM FFC-1. Report on Receipt of Drug - Guide for Reporting Investigational New Animal Drug Shipments for Poikilothermic Food Animals**

**INSTRUCTIONS**

1. Investigator must fill out Form FFC-1 **immediately** upon receipt of florfenicol-medicated feed.
2. Investigator should keep the original on file, and send one copy to the Study Monitor for review.
3. Within 10 days of receipt, the Study Monitor should send a copy to the Bozeman NIO.
4. **Note:** Both Investigator and Study Monitor should sign and date Form FFC-1.

***The sponsor, U.S. Fish and Wildlife Service, submits a notice of claimed investigational exemption for the shipment or delivery of a new animal drug under the provisions of Section 512 of the Federal Food, Drug, and Cosmetics Act. The following information is submitted in triplicate:***

Name of Drug	<b>Aquaflor®</b>	INAD Number	<b>10-697</b>
Proposed Use of Drug	Treatment of certain bacterial diseases that occur in a variety of fish species		
Date of CVM Authorization Letter	August 17, 2011		
Date of Drug Receipt		Amount of Drug Received	
Drug Lot Number		Trial Number	
Name of Investigator			
Address of Investigator			
Location of Trial			
Pivotal Study	<b>Yes</b>	Non-pivotal Study	----
Approximate Number of Treated Animals		Approximate Number of Control Animals	
Number of Animals Used Previously <sup>1</sup>			
Study Protocol Number	10-697		
Approximate dates of trial (start/end)			
Species, Size, and Type of Animals			
Maximum daily dose and duration	15 mg florfenicol/kg fish per day for 10 consecutive days		
Methods(s) of Administration	Medicated-feed		
Withdrawal Period	21 days for salmonid species; 28 days for non-salmonid species		

<sup>1</sup> To be filled out by the NIO

Date Prepared: \_\_\_\_\_ Investigator: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_ Study Monitor: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_ Sponsor: \_\_\_\_\_

**Instructions:**

- Quantity on Hand

From Previous Page (lbs):

**Facility:**

Reporting Individual:

[illegible]

<sup>1</sup> Unused Aquaflor® Premix that is shipped to another facility participating in Aquaflor® INAD #10-697 (Note: Aquaflor® Premix can only be shipped to another facility with prior authorization by the AADAP Office).

<sup>2</sup> Unused Aquaflor® Premix that is disposed of by burial or in a landfill.

Investigator:

### Signature and Date

**Study Monitor:**

### Signature and Date

**Instructions:**

- Quantity on Hand
- 
- From Previous Pa

Reporting Individual:

Facility:

<sup>1</sup> Unused Aquaflor<sup>®</sup> treated feed that is shipped to another facility participating in Aquaflor<sup>®</sup> INAD 10-697 (Note: Aquaflor<sup>®</sup> treated feed can only be shipped to another facility with prior authorization by the AADAP Office).

<sup>2</sup> Unused Aquaflor<sup>®</sup> treated feed that is disposed of by burial or in a landfill.

Investigator:

### Signature and Date

## Study Monitor:

**Signature and Date**

# Form FFC-3. Diagnosis, Treatment, and Mortality Record for Clinical Field Trials Using Aquaflor® as Feed Additive under INAD #10-697

**Instructions:**

1. Fully fill out this report no later than 10 days after completion of the 21-day post-treatment observation period. Attach lab reports and other information.
2. Investigator should sign the form, and archive the original in station files. Send a copy of the form to the Monitor. Within 10 days of receipt, the Monitor should send a copy to the Study Director for inclusion in the permanent file.

**SITE INFORMATION**

Facility	
Reporting Individual	

**FISH CULTURE AND DRUG TREATMENT INFORMATION**

Fish species treated		Fish disease treated	
Average fish/pound		Average fish length	
Number of fish per experimental unit (indicate tank, raceway, or pond)			
Number of treated units		Number of control units	
Total weight of fish treated (lbs or kg)		Feed rate (% BW/day)	
Treatment duration	10 days	Total medicated feed fed (lbs or kg)	
Aquaflor® lot number		Florfenicol dosage (i.e., 10 or 15 mg per kg fish body weight)	
Aquaflor® premix used to prepare medicated feed (g)			
Feed type (manufacturer/moist <u>vs</u> dry/size)			
Feeding method (hand, auto, demand)			
Preparation of Aquaflor® treated feed (top-dressed at facility or prepared by feed manufacturer)			
Date treatment started		Date treatment ended	

**WATER QUALITY PARAMETERS**

Ave pre-treatment temp (°F)		Dissolved oxygen (mg/L)	
Ave treatment temp (°F)		pH	
Ave post-treatment temp (°F)		Hardness - CaCO <sub>3</sub> (mg/L)	

**Form FFC-3. Daily Mortality Record****INSTRUCTIONS**

Enter today's date (mo/day) and water temp (°F.). Enter the rearing unit numbers at the head of each column for each test or control unit in the study. Enter "T" if the unit is designated in the study to receive treatment. Enter "C" if the unit is designated as an untreated control unit. Also enter the number of fish in each rearing unit at the start of the study. Enter each days total mortality for each unit in the proper column. Use additional copies of this form for additional rearing units or additional days of observation.

			Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	
		T or C							
		# Fish							
Day	Date	Water Temp	Mortality #	Mortality #	Mortality #	Mortality #	Mortality #	Mortality #	Observer Initials
<b>Pre-treatment Period</b>									
10									
9									
8									
7									
6									
5									
4									
3									
2									
1									
<b>Treatment Period</b>									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

**Form FFC-3. Daily Mortality Record****INSTRUCTIONS**

Enter today's date (mo/day) and water temp (°F.). Enter the rearing unit numbers at the head of each column for each test or control unit in the study. Enter "T" if the unit is designated in the study to receive treatment. Enter "C" if the unit is designated as an untreated control unit. Also enter the number of fish in each rearing unit at the start of the study. Enter each days total mortality for each unit in the proper column. Use additional copies of this form for additional rearing units or additional days of observation.

			Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	Rearing Unit #	
		T or C							
		# Fish							
Day	Date	Water Temp	Mortality #	Mortality #	Mortality #	Mortality #	Mortality #	Mortality #	Observer Initials
Post-treatment period									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									



**Results:** Explain outcome of treatment. Describe in detail exactly how treatment worked. Was treatment successful? If not, why not? Attach pathology reports; Both Pre-and Post-Treatment.

**Toxicity Observations:** (Report any negative reaction of fish; did treatment harm fish?)

**Drug Discharge Resulting from Treatment:** Calculate actual FFC drug level in hatchery discharge resulting from treatments. Use Addendum 2: Discharge Worksheet for calculations and attach completed Discharge Worksheet to this form. Also indicate method of disposal (if any) of FFC-bearing solid wastes.

**Observed Withdrawal Period:** (Investigator should initial the appropriate box below)

<input type="checkbox"/>
<input type="checkbox"/>

21 day withdrawal period for salmonid species.

28 day withdrawal period for non-salmonid species.

Estimated number of days between last treatment and first availability of fish for human consumption (ensure this time period meets the withdrawal period). \_\_\_\_\_

**Disposition of Unused or Spoiled Aquaflor® Treated Feed:**

\_\_\_\_\_ **Negative Report:** Aquaflor® treated feed was not used at this facility under this Study Protocol Number. (Investigator should initial for negative reports.)

Date prepared \_\_\_\_\_

Investigator \_\_\_\_\_

Date reviewed \_\_\_\_\_

Monitor \_\_\_\_\_

## Discharge Worksheet - Florfenicol

**Instructions:** Use this Worksheet to calculate estimates of 1) the *maximum* amount of florfenicol (in milligrams) to be fed each day during treatment of the fish at your facility, and 2) the resulting average daily concentration of florfenicol in your total hatchery wastewater discharge.

*Handy conversion factors:* 1 part per million (ppm) = 0.0283 grams/cuft; or, 0.0038 grams/gallon.

### Calculations:

#### Step 1 - Calculate the total volume of treated and untreated water:

- 1a Number of rearing units to be treated: \_\_\_\_\_
- 1b Total water volume through these treated units during 24  
hours: \_\_\_\_\_ (gal.) or (cuft.) of treated flow
- 1c Total water volume through all other untreated units during 24  
hours: \_\_\_\_\_ (gal.) or (cuft.) of untreated flow
- 1d Grand total hatchery discharge (Treated + Untreated):  
\_\_\_\_\_ (gal.) or (cuft.) of flow during 24 hours.

#### Step 2 - Calculate the daily amount of florfenicol fed each day (24 hours) in this trial:

$$2a \quad \frac{\text{Florfenicol}}{\text{mg}} = \left( \frac{\text{Kg of fish treated}}{100} \right) * \frac{\text{Florfenicol dosage}}{\text{mg florfenicol/kg of fish}}$$

#### Step 3 - Calculate florfenicol level resulting in hatchery discharge during treatment period:

$$3a \quad \frac{\text{Disch. level}}{\text{PPM}} = \frac{\text{Amt. from line 2a}}{\left( \frac{\text{Total vol. (line 1d)}}{\text{Conver. factor}} \right)}$$

\* If in gallons use 0.0038  
If in cubic ft use 0.0283